

REMARKS

Claims 1-40 are currently pending in the Application. In light of the following remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections.

Claim Rejections – 35 U.S.C. §102

In the outstanding Office Action, claims 1 and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by U. S. Patent No. 5,956,015 to Hino ("Hino"). Applicants submit the Examiner has failed to establish a *prima facie* case of anticipation and thus traverse this rejection.

Regarding claims 1 and 21, Hino merely discloses a system related to color matching a display output on a monitor with a hard copy on an image-carrying medium such as paper (column 1, lines 6-9). Specifically, a human observer 20 matches a color output 30 on the monitor display 22 with one of the sample colors on the patch 24 under a predetermined ambient light 28 using a monitor display controller 36. The controller 36 includes at least control knobs 38 to adjust certain display characteristics such as brightness, hue and saturation (column 6, line 63 through column 7, line 2). Hino further discloses that the human observer 20 views both the CRT display 22 and the predetermined color patch 24 at the same time to determine if they are perceptibly equal. The CRT display 22 is placed adjacent to color patch 24, and a divider 26 is

placed between them. The divider 26 prevents a light source or ambient light 28 placed near the color patch from casting its light to the CRT display monitor 22. Hino further discloses that it is preferable that the CRT display monitor 22 is placed in a dark room. (See column 6, lines 16-28.) The predetermined ambient light 28 is only provided to enable the observer 20 to see the color patch which is placed on a stand 34 (column 6, lines 29-30).

The human observer's perception that the display output 30 and a predetermined color patch 24 are identical depends upon ambient light under which the color patch is viewed (column 7, lines 4-7). As disclosed in Figure 6, humans perceive the luminance of the color path and the CRT brightness of the display output are directly related, and thus the luminance of the ambient light under which the observer views the color patch affects the color perception. (See column 7, lines 24-33.) To correct the luminance for color matching, the color patch data, which is in the RGB format, may be converted to XYZ values in the RGB-XYZ conversion step and two parameters, α and β , are adjusted to perform luminance conversion. These coefficients are subsequently empirically determined. (See column 7, line 57 through column 8, line 24.) The adjusted color output on the monitor is compared against the predetermined color patch. The matching process is repeated for each pair of α and β parameters until the human observer declares that the displayed color is substantially identical with the color patch. (See column 8, lines 52-56.) The color matching process shown in Figure 8 may be

repeated until the observer satisfies that the compared colors are substantially identical (column 9, lines 22-24).

Conversely, Hino fails to disclose, at least, "a black correction processing of correcting a black reproducibility ... to output black corrected image data," as recited in claims 1 and 21.

As set forth in Applicants' specification, at least on page 31, lines 17-21, "the term 'black correction' in the present specification may mean correction of black reproducibility, and is used in general for correcting of 'black fading' due to the influence of external light, and for the correction of 'black fading' due to the characteristic of an image display means." Hino is distinguished at least by the above feature presented in claims 1 and 21 in that Hino discloses that the CRT is shielded from the ambient light used to illuminate the color patch and, in fact, discloses that it is preferable that the CRT display monitor is placed in the dark. (See column 6, lines 26-27.)

Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 1 and 21.

Claim Rejections – 35 U.S.C. § 103

Claims 2-20 and 22-40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hino in view U. S. Patent No. 6,480,202 to Deguchi et al. ("Deguchi").

Applicants submit the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverse this rejection.

Claims 2-20 and 22-40 depend from claims 1 and 21, respectively, and therefore include all of the features recited in their respective dependent claims. As presented above, Hino merely teaches color matching systems and methods allowing a user to match color output shown on a CRT display 22 and a predetermined color patch 24 shown on a hard copy image-carrying medium. A divider 26 shields the CRT display 22 from an ambient light source 28 used to illuminate the hard copy color patch 24.

However, Hino fails to teach or suggest, at least, “performing a black correction processing of correcting a black reproducibility ... to output black corrected image data ... and ... performing an image display on a predetermined screen based solely on said black corrected image data,” as included in claims 2-20 and 22-40.

Deguchi fails to cure the deficiencies of Hino in this respect. Deguchi merely teaches an apparatus and method for updating the profile of a display monitor based upon information obtained regarding the monitor's viewing environment. (See column 4, lines 52-55.) Specifically, Deguchi discloses an image processing section 100, which, based upon input ambient light information, generates a monitor profile which compensates for the viewing affects of ambient light. (See column 4, lines 46-64; Figure 8.) The image processing section prepares tone reproduction curves (TRCs) on the basis of the contrast and brightness selected for the monitor 103 and generates a

matrix from the reference white point also selected for the monitor 103 (column 6, line 65 through column 7, line 1). Image processing section 100 also generates and provides RGB data and gain and offset values for the monitor 103. (See column 7, lines 1-10; column 7, lines 26-29; Figure 8; column 9, line 65 through column 18, line 13.)

Because neither Hino nor Deguchi teach or suggest, either singly or in combination, all of the features included in claims 2-20 and 22-40, Applicants respectfully request the Examiner to withdraw the § 103(a) rejection of these claims.

Moreover, Applicants submit that one of ordinary skill in the art would not be motivated to modify Hino by the teachings of Deguchi. As stated above, Deguchi teaches an apparatus and method for compensating the output of a CRT monitor which takes the influence of ambient light into consideration. The apparatus includes a viewing environment converting section 100a, which calculates tristimulus values of ambient light and determines by computation tristimulus values for the CRT and tonal response curves of the monitor taking the influence of ambient light into consideration. (See column 6, lines 57-60.) However, Hino teaches that the CRT, which is used as a basis for a color comparison with a hard copy containing color patches 24, is isolated from ambient light 46, which is used to illuminate the color patches. This may be done by placing a divider 26 between the ambient light and the CRT, or by placing the CRT monitor 22 in a dark room. Accordingly, because the teachings of Deguchi are directed to compensating the display of a CRT monitor according to its environment, and Hino

attempts to isolate the monitor from ambient light conditions, the teachings of the two disclosures are incompatible, and one of ordinary skill in the art would not be motivated to combine them.

Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 2-20 and 22-40.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination.

In view of the above amendments and remarks, reconsideration of the rejections and allowance of all of the claims are respectfully requested.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (703) 205-8000 in the Washington, D.C. area.


A prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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